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ABSTRACT

Tested with the Stanford-Binet Scale of Intelligence were 70 children, aged 3- to 5-years with IQ's from 75 to 145, to determine whether the test could serve as a diagnostic tool for identifying learning disabilities (LD) in preschool children. It was hypothesized that LD children would have a basal age no more than two levels below chronological age; that LD children would show a test scatter ranging over at least four levels of the test; that LD children would have particular difficulty with items involving memory, concentration, visual motor, judgment, and reasoning skills; and that LD children would show behaviors indicative of hyperactivity, distractibility, short attention span, or impulsivity during the testing procedure. It was found that 20% of the children had basal scores at 2-years below age level, a figure in line with estimates of the incidence of LD children. Test scatter ranging over 4 levels was found for all the normal preschool children indicating test scatter is not of diagnostic value. In addition, no children failed on visual-motor items, and the 40% of the sample who failed on items of judgment, reasoning, memory, and concentration had social backgrounds which might account for the difficulty. Behavioral symptoms during testing did not distinguish the LD child from the immature or emotionally disturbed child. It was concluded that early predictive identification of LD children is not presently possible, and that a child with a potential learning disability should not be labeled or removed from the regular classroom. (DB)

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Psychological Evaluation of Preschool Children: or Can Learning Disabilities Be Evaluated in the Preschool Child Using The Stanford-Binet As a Screening Instrument

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Since the summer of 1972, the Chicago Board of Education has made provision for the education of all handicapped children, ages three to twenty-one in diagnostic clinics and in school settings in three sections of the city labelled Area A, Area B, and Area C. Prior to that time, the concern of educators had been mainly with the school age child five years and older. This shift downward to the three-year-old level has presented the school with many new challenges. For the school psychologist, the new age span has been particularly significant.

The school psychologist has been traditionally trained to function with school age children. Now the psychologist must incorporate a completely new orientation as well as new techniques in working with the younger child. In the past we were working with a child who was referred primarily because of his school problems. Now we are faced with the younger child who is encountering problems in the home situation.

What are some of the difficulties in the home that cause the parent to register the three-year-old as handicapped? Handicapped registrations include all varieties of problems: physical, emotional, intellectual, and a combination of any of these. Recently a new category has been added to include the learning disabled youngster.

It was our position before beginning this study that diagnostic techniques, psychometric instruments used, and evaluative screening, should lead to early differential diagnosis between

mental retardation and learning disability. The results of our study indicate that we were able to identify a retarded child. However, a differential diagnosis of learning disability could not be established inas uch as the picture of the learning disabled child at the pre-school age, is complicated by developmental lags, experiential background, emotional instability, cultural expectations, and child rearing factors.

Much of the work done on diagnosing learning disabilities has been with the elementary school child. While the preschooler has not been excluded in many of the studies, these children have not been the primary target of the studies. We are not entering the period when the focus is shifting to diagnosing learning disabilities in the very young child. This shift is particularly important if we are to begin planning special prescriptive programs early in the child's education.

For the purposes of this paper, we shall limit our discussion to the many faceted problems which have been incorporated in the term learning disability or minimal brain dysfunction.

Dr. Cruikshank has identified forty-three terms used in the current literature, all referring to the same group of children identified as having a learning disorder. As everyone does not use all forth-three terms interchangeably, it is necessary for us to define what we mean by a learning disability in this paper.

We would agree with the following statement made by Dr. Alexander Bannatyne of the University of Illinois: "I use the term as a generic one which covers any difficulties in acquiring

knowledge possessed by children (or adults) with average (or above) intelligence. (IQ's approximately over 75)."

We would also agree with the definition of learning disabilities put forth by Gateway School (1966): "Learning disabilities are the presumptive product of disturbances in the normal time table of development. Uneven levels of functioning, with performance in some areas within or above age level expectancy and in others below."

We are suggesting that the pre-school child with a learning disability have:

1) boderline to above average intelligence.

2) unevenness in one or several areas of development. For example, language development and co prehension may be at age level whereas gross and fine motor development may show severe delays; or the disparity may be reversed with the delay manifest in the area of speech and language.

3) Have difficulty learning, but not a generalized incapacity to learn.

In the words of Johnson and Myklebust in their book, Learning Disabilities:

> "It is our contention that children included in the category of learning disability should have adequate intelligence so that the basis of the ho ogeneity is a disability, not an incapacity."

We exclude mentally retarded children as we do not think of children with learning disorders as being those of significantly below average intelligence. We also exclude the emotionally disturbed, sensorially impaired such as the partially sighted and hard

of hearing, or other children with central nervous system disorders. While it is true that the learning disabled child may show signs of an emotional disturbance or motor incoordination, these problems are secondary to the specific learning disability.

As we discuss the child's development with the parents, we are concerned with exploring the concept of learning disability from a medical standpoint; that is, we look primarily for a central nervous system dysfunction. We are cognizant of the symptoms which such dysfunction would produce and are on the alert for their signs. These symptoms are well known and have been reiterated ad nauseum--short attention span, distractibility, hyperactivity, irritability, etc.

In the medical and physical history of the child we are also concerned with the chronology of developmental milestones. The order and stages of development having been well established, we look for inconsistencies and deviations in this child's development, as clues to the possibility of the existance of a learning disability.

In intelligence testing, the Wechsler Intelligence Scale for Children has been one of the primary instruments in assessment. If the emphasis is on the school age child, as it has been in the past, this instrument is appropriate. However, in evaluating the preschooler, the WISC is no longer the appropriate tool, as its lowest age level is at six years. As the WISC does not yield a mental age equivalent, it becomes more difficult to gauge the educational level at which the child should be functioning.

Furthermore, the WISC yields three IQ's. It is possible that if only a full scale IQ is used, a child who is considerably lower in either performance or verbal areas may be excluded from learning disability service in a particular school system, if in that system placement is based on the total score. For example, a verbal IQ of 90 and a performance IC of 68 yield a full scale IQ of 77.

If the Wechsler PrePrimary Scale of Intelligence is administered, we are confronted with the same problem in its interpretation. Furthermore the WPPSI is designed for the child between the ages of four to six-and-one-half years of age. It cannot be used with the three-year-old or the dysfunctioning four-year-old. In addition to these rational reasons, our experience the the use of the WPPSI has left us feeling frustrated and the child appears resistant. The bright child has reacted to the WPPSI as fun and games, whereas the slower child and the hyperkinetic child has been unable to follow the directions and to attend at any length to the task requirement.

On the basis of elimination then, we attempted to utilize the Stanford Binet Scale of Intelligence as a diagnostic tool in evaluating learning disabilities in preschool children.

In our evaluation of preschool children and in an attempt to identify possible learning disabilities, we have assumed that the profile of test results of the child who may have a learning disability, will be different from the average or retarded child in the following ways:

A. Basal age on the Stanford-Binet will be no more than two levels below chronological age

B. Test scatter of successes will range over at least four levels of the Stanford-Binet

We were immediately able to identify the retarded child because this child never basaled at or near age level. Usually the basal age was approximately two years below age level (four levels below chronological age), and the retarded child rarely achieved success on any items at age level. There was very limited test scatter on the protocol of the retarded child.

C. Problems which might be indicative of learning disabilities would appear in Stanford-Binet items involving memory and concentration, visual motor, and judgment and reasoning.

Our reasoning for selecting these items is based on the already well delineated symptomology of the learning disability child. The individual test items used were selected in accordance with the Valett Profile.

D. One or all of these factors would be apparent during testing: hyperactivity, distractibility, short attention span, and impulsivity.

We then proceeded to test our hypotheses. Protocols of seventy preschool children, ages 3-0 to 5-0 were evaluated. IQ's ranged from 75 to 145.

HYPOTHESIS A--BASAL AGE SHOULD BE NO MORE THAN TWO LEVELS BELOW CHRONOLOGICAL AGE.

Item analysis of our sample indicated that 20% of pre-schoolers with average IQ basaled two years below age level. Sixty per cent basaled six months below age level. Only 20% basaled at age level.

Can the learning disability child be differentiated on this basis? Our hypothesis of the basal may have been placed at too high an age level, and the 20% figure which we obtained of pre-school children who basaled two years below age level, may present a clue to the differential diagnosis of early learning disability. Estimates of learning disability in the school age child have ranged from 3% to 15%. Assuming that the 3% reflects the severely learning disabled child and the 15% the moderate learning disability, our figure, allowing for developmental differences, may be in accordance with the statistically accepted figures.

HYPOTHESIS B--TEST SCATTER TO RANGE OVER FOUR LEVELS.

Scatter as evidenced by all preschool children tested, who were not retarded, ranged through at least four levels. There were also some retarded children both in TMH and EMH ranges who were able to succeed through four levels of the Stanford-Binet, but at a lower age level. Our conclusion on this hypothesis was that on this basis, we could not differentiate the child who might become learning disabled.

HYPOTHESIS C--FAILURE ON VISUAL-MOTOR, JUDGMENT AND REASONING, AND MEMORY AND CONCENTRATION ITEMS. (We are evaluating each part individually).

1) Failure on Visual-Motor Items.

No failures below age level were evidenced in any of the

children in our sample. Thus these items as presented on the Stanford-Binet, did not differentiate the preschool child who might be learning disabled.

2) Items of Judgment and Reasoning.

Forty per cent of our sample failed in these items at six to twelve months below age level. Further analysis of these failures revealed social backgrounds which might account for the difficulty encountered by the children who spent their first year of life in institutions, experiential deficit in the home, including economic deprivation and parents who might be retarded themselves. Other children who failed these categories included those with severe speech problems and symptoms of withdrawal. Thus, we could not differentiate the learning disabled child on this basis.

3) Failure on Memory and Concentration Items.

Here we repeat the same 40% failure as in items of judgment and reasoning. As might be suspected, the same children were involved and the same reasons continue to be valid, with the added one of anxiety experienced by the child during the testing process.

HYPOTHESIS D--SYMPTOMOLOGY APPARENT DURING TESTING

It is ture that while learning disabilities may often be diagnosed on the basis of symptoms (distractibility, short attention span, hyperactivity, impulsivity), these symptoms may also be present in the immature and the emotionally disturbed child. Behavioral symptoms which essentially determine the child's approach to the task presented, may not clearly differentiate the child who may be a learning disability as he enters the first grade.

We have not isolated and evaluated other tentative predictors of future learning problems such as visual-motor difficulties or language factors. However, many studies have been made in these areas and have been documented. We especially refer you to the September, 1973 Issue of Exceptional Children and the article by Barbara Keogh and Laurence Becker from the Special Education Research Program in the Department of Education, University of California. In reporting on studies of the Bender Gestalt and cognitive language factors the authors indicate that the relationships between single specific preschool test findings and later school achievement are too low to allow definitive prediction about individual children.

What conclusions have we reached regarding the identification of learning disability children prior to entrance into kindergarten? In our continued working with the preschool child we have finalized our own yhinking toward the direction of continued evaluation of these children and continued searching for all of these factors which may be indicative of future learning problems. However, our direction is not in terms of isolation of these children and categorizing them in any fashion. We do believe that if possible under the School Code and House Bill 322 these children should be admitted to preschool classes for assistance and special techniques of teaching and working both with the parents and the child. In kindergarten, the teacher should be made aware of the special problems which this child may have at this point of time and methods that might be used to help alleviate these problems. In other words,

program modification within a regular classroom will assist this child at this point of time and may be a much more effective and efficient procedure. Isolating and stigmatizing the child will not in itself remediate the problem and may only serve to emphasize and continue the problem as parents will see the child as"special" and the child himself may find this behavior serves his other needs for attention and security. It is also possible that some children may be able to compensate for their problems without the need of intervention.

Our final question must be what will be the greatest benefit for the child? Will it be a course of action which will continue to see him as special and perhaps continue the child on a course of failure, or will it be a course that accepts the child in the mainstream and one that adapts and modifys techniques in a prescriptive program? We strongly urge a mainstream approach rather than any course that might lead towards failure.

Hunt, Bereiter, Elkind and others suggest that intervention can be positive if it is ture intervention. If a disadvantaged child, particularly, is engaged in cognitive tasks and in positive human relations early enough and in the right point in time, he is bound to learn actions associated with growth. Thus, compensatory or prescriptive programs that will make a difference must involve service that takes into account the background and the constitutional readiness of the child. They must include

programs that develop the social and intellectual capacities of the child. It is not expected that major problems associated with the learning disabled child can all be solved, but hopefully such programs will bring these children into the mainstream of active living in America.